TRANSACTIONS

OF THE

NEW YORK SURGICAL SOCIETY.

Stated Meeting, May 13, 1908.

The Vice-President, DR. ELLSWORTH ELIOT, JR., in the Chair.

VOLKMANN'S ISCHÆMIC PARALYSIS.

DR. GEORGE D. STEWART presented a boy, 7 years old, who on November 17, 1907, fell, receiving a supracondyloid fracture of the right humerus. A temporary wooden splint was applied at Bellevue Hospital, and the patient was sent home, where he was seen the same evening by the family physician, who reduced the fracture under anæsthesia and applied a triangular splint. On the second day the hand was swollen and blue. The dressings were changed, and it was then noticed that the power of flexion was interfered with. This, however, was attributed to the œdema. After gentle massage, splints were lightly re-applied. Treatment thereafter consisted of daily dressing, with gentle massage, for the purpose of reducing the swelling. On the third day a pressure sore developed on the flexor surface of the forearm, immediately below the elbow-joint. The child suffered a great deal of pain during the first few days after the injury. On December 12, 1907, there was a profuse secondary hemorrhage from the pressure ulcer. Paralysis of the flexors, with inability to extend the wrist and fingers, was then well marked. A week later, Dr. Stewart saw the patient in consultation, and made a diagnosis of ischæmic paralysis.

On January 6, 1908, the patient was seen by a neurologist and an orthopædist, who suggested that although the nerves were apparently active, they might be impaired by callus of bone or scar tissue. Accordingly, on January 21, the patient was operated on by Dr. Stewart, and the median nerve was isolated for two or three inches above and below the elbow. Neither at the site of the healed ulcer, nor above or below it did the nerve appear to be compressed, but the muscular tissue had disappeared, and in its place there was a fibrous structure. The patient left the hospital, unimproved. Since that time, under exercise and daily massage, he had improved slightly. His condition, on the whole, however, remained the same.

Examination at the present time showed a typical ischæmic paralysis, as described by Volkmann. In this case, as in the majority of recorded cases, the location of the fracture was in the lower part of the humerus. The causative factors were probably damage to one of the vessels, likely the ulnar; pressure from the lower fragment of the humerus; and pressure from the application of splints. There was marked atrophy of the muscles of the forearm, particularly the flexors, and the muscles had a board-like sensation. Motion at the elbow-joint was very limited, due to the fracture; the forearm was pronated and the fingers were flexed, giving a typical claw-hand appearance. When the wrist was fully flexed the fingers could be extended; when the wrist was extended, however, flexion of the fingers could not be prevented. Forcible extension of the fingers caused the flexor tendons at the wrist to become prominent. Touch and temperature sense had never been impaired. The muscles reacted to both galvanic and faradic stimulation, proving, according to Taylor, that the nerves were not damaged.

The fibrous degeneration which took place in these cases of ischæmic paralysis was no doubt very closely allied to the changes observed in the sternocleidomastoid muscles and contiguous structures in certain cases of so-called congenital torticollis, due to faulty position *in utero*, and a consequent ischæmia.

PRIMARY SARCOMA OF THE APPENDIX.

Dr. Stewart presented a man, 35 years old, a native of Greece, and a peddler by occupation, who was admitted to Bellevue Hospital on January 27, 1908.

Bearing upon his present illness, the patient gave a history of having had three similar attacks: During the first one, which occurred about a year ago, the pain was localized over the appendix, but was not very severe. A second similar attack had occurred three months ago, and a third one four weeks ago. This was more severe than the previous attacks, and was accompanied by vomiting.

Present illness: On the night preceding his admission, after eating some cheese and olives, the patient experienced a diffuse, dull pain, constant in character, and located in the abdomen. He had vomited five times during the early morning, the vomitus consisting of undigested food; it was sour to the taste, but contained no blood. For the past three or four days his bowels had been constipated. On the day of his admission he had two watery passages which contained no blood. His pain had gradually increased in intensity. On admission, his temperature was 102; pulse, 100; respirations, 24. A blood count showed 16,000 leucocytes; 80 per cent. polynuclears; 8 per cent. transitionals; 8 per cent. lymphocytes; 1 per cent. mononuclears. On the following day the leucocytes numbered 12,200; polynuclears, 80 per cent.; transitionals, 5 per cent.; lymphocytes, 13 per cent.; mononuclears, 2 per cent.

Upon physical examination, the patient, who was well nourished and developed, was found lying on the left side with the knees somewhat flexed and the thighs drawn up. There was no vomiting; he did not complain of pain. The abdomen was normal in appearance; the respiratory movement was decreased, with slight general resistance. The upper half relaxed fairly well; the lower half was held more firmly, and deep palpation was resisted. There was a slight spasm in the region of the right lower rectus, where the stiffness was more marked than on the left side. He pointed to McBurney's point as the spot of greatest tenderness and pain. The liver and spleen were normal.

Operation, February 1, 1908: Upon opening the peritoneum, the muscular bands on the cæcum were followed to the tip of that organ, where they disappeared behind the peritoneum, or, more properly, behind adhesions. With the finger, a small mass was felt in the ileocæcal angle projecting forwards from the peritoneum on the posterior abdominal wall, and about one inch internal to the cæcum. The mass was taken, correctly, to be the tip of the appendix, and with the finger the supposed adhesions were broken up. The appendix was separated up to its cæcal origin, where it was ligated and removed in the usual way. The patient's recovery was uneventful, and he left the hospital on February 19, 1908.

The pathological report, by Dr. Harlow Brooks, was as follows: The mass was composed of mingled blood clot, largely absorbed and replaced by a mass of rapidly proliferating spindle- and spider-shaped cells, of a decidedly fœtal type supported in a mucoid matrix. The tissue was not highly vascular, but the vessels present, for the greater part, were surrounded by an inflammatory infiltration in which eosinophilic leucocytes were notably frequent. Many of the fibroplastic cells, some of which were of very large size, contained considerable quantities of dark-brown pigment, presumably of hæmatogenous nature.

The mucosa of the appendix was intact, but the other walls were greatly thickened by a mingled growth of adult connective tissue, evidently of long standing, and by infiltrating sarcomatous cells of similar character to those noted in the external mass. In one area, these cells extended entirely to the mucosa, and the submucosa throughout was packed with them. The lymphoid tissue was for the greater part replaced by either these cells or by fibrils of connective tissue. In addition to the neoplastic elements, the smaller vessels were surrounded by inflammatory infiltration, acute or subacute in origin.

Occasional areas of necrosis were present, both in the appendix and in the external mass, and the possibility of a syphilitic process had not been overlooked. After a careful study, Dr. Brooks said he believed that the process was unquestionably sarcomatous, and that the probable primary lesion was in the wall of the appendix, where the malignant growth was perhaps excited by chronic and persistent inflammatory disease. He therefore classed the process as a fibrosarcoma of the vermiform appendix.

A search of the literature on primary sarcoma of the appendix showed a total of nine cases. In only five of these were there authentic pathological reports; three were of doubtful origin, and in one case the original report could not be found. The first case was reported in 1895.

This case was shown, Dr. Stewart said, because of the relative infrequency of the condition, and because it resembled so closely an ordinary attack of appendicitis. Indeed, the gross specimen, as well as the history, gave little hint of the true nature of the disease, and the case strongly emphasized the value of routine microscopical examination.

Dr. Eliot said that about three years ago he published a case of benign papilloma of the appendix, in which the growth completely filled the lumen of the organ. It must have existed for a number of years, but never gave rise to any symptoms until three days before the appendix was removed. The patient had an apparently mild attack of appendicitis, and owing to the persistence of the tenderness, the removal of the appendix was advised. Upon operation, this papillomatous condition was found, the growth closely resembling a papilloma of the bladder.

CARCINOMA OF RECTUM.

Dr. Stewart presented a man, 49 years old, who was born in England, and whose occupation was that of a carpenter. There was nothing important in his family or past history. About two years ago the patient began to suffer from diarrhœa having six or seven loose, watery, yellowish stools daily. After two or three months there was considerable blood and mucus present. He had no pain; only slight tenderness. His diarrhœa gradually increased in severity, and when he was admitted to the hospital he had as many as 24 movements a day; these stools were never formed, and their frequency and consistency was unaffected by diet. He had never vomited, but there was occasional retching; no hæmatemesis. Six months ago he had hemorrhoids, which disappeared under treatment. The abdomen had never been swollen. For the past eighteen months the patient had been losing flesh and strength, but had not stopped work.

Upon examination, about a finger's length from the anal orifice, there was a very tender, firm nodular mass, which had the feel of a much lacerated cervix uteri. An ounce or two of blood was expelled after each examination. The tip of the finger passed into the lumen narrowed by the growth, but not beyond. The patient complained of no pain in the rectum, but had a vague tenderness referred to the lower abdomen. At times, there was slight difficulty in starting micturition, but no urgency, frequency, tenesmus, dysuria nor hæmaturia. His appetite was good, and he slept well.

Operation March 25, 1908: Upon opening the abdomen by the Pfanensteil method, examination of the pelvic contents showed that the rectum was involved up to the pelvic brim; this included the entire rectum and the lower part of the sigmoid. The mesocæcum was opened, and the superior hemorrhoidal vessels tied. Following this, both internal iliac vessels were easily ligated. The bowel was then cut in two and clamped, the cautery being used, and a ligature placed on the upper portion. The lower end was carefully turned in, as it was decided not to attempt to remove the diseased bowel. An inguinal artificial anus, made by splitting the muscular fibres, was then established about an inch and a half from the anterior superior spine, the bowel being well drawn through. (The ligature was left *in situ,* and remained there for three days before its removal; some leakage occurred, however, before the first dressing.) The abdominal wound was then closed.

As the patient was in good condition, it was deemed permissible to attempt removal of the diseased rectum. Accordingly, the patient was placed in the Sim's position, and an incision made beginning down by the side of the coccyx and running forward along the median line to and around the anus, the anal opening having been carefully sutured. This incision was deepened, and to gain additional room the coccyx was removed. Through this incision it was possible, after opening the peritoneum, to reach up and secure the upper end of the lower portion of the bowel. This was turned down, and carefully cut away from the bladder wall, the whole being removed. The perineum was closed by sutures, leaving a large drain and gauze packing. No attempt was made to close the pelvic peritoneum, as this would have been impossible from the perineal wound. In the early part of the operation, during ligation of the iliacs, the ureters were isolated, and subsequently they were dissected well down to the bladder: it was therefore possible, in the part of the operation performed from below, to avoid them easily. At no time was there any hemorrhage, nor was it necessary to secure a single artery. In dissecting the tumor from the posterior bladder wall at the site of the trigone, as the seminal vesicles were involved, it was necessary to place a sound in the bladder to avoid wounding the wall of that organ in this location.

The tumor, upon removal, measured eleven and a half inches. It was examined in the pathological department by Dr. Charles Norris, who classified it as an adenocarcinoma. Since operation, the patient has gained 20 pounds. His abdominal wound healed *per primam.* The perineal wound healed more slowly, but it had for some time been entirely closed. Control of the artificial anus was almost perfect; on some days he had but one movement; on others, particularly if the bowels were loose, he might have two. He stated that his sensations gave him no indication as to whether or not his bowels had or were about to move. Ordinarily, if he attended to this in the early part of the day, he went unsoiled until the next day. During the first dressings, before the abdominal wound was perfectly healed, in order to protect the wound from soiling, a large sheet of rubber dam was slit at its centre, and this was drawn over the protruding cuff of the bowel, which it fitted snugly. Afterwards, dressings were placed around the opening of the bowel and the rubber folded over from all directions, thus protecting the abdominal wound much more thoroughly and effectively than could be done by the use of Paul's tube and a rubber tube leading away from the bed, or by any other method that could be thought of. Indeed, the attempt to introduce any sort of a tube for the purpose of conducting away the fecal contents was usually unsuccessful, because it was impossible to tie such a tube into the bowel for any length of time without producing sloughing of the bowel wall.

This case was placed on record, Dr. Stewart said, (1) because it was believed that the choice between an inguinal artificial anus and one placed according to the Kraske method, or some modification thereof, was still an open question which could only be decided from the records of a large number of cases; (2) to call attention to the easy control of hemorrhage by resorting to ligature of the internal iliac artery.

TRAUMATIC APHASIA FROM CONTRE COUP.

Dr. Howard Lilienthal presented a man, 38 years old, a native of Russia and a painter by occupation, who was admitted to Mt. Sinai Hospital on November 5, 1907. The history obtained then was that about two months prior to admission he had received an injury of the right side of the head, with fracture of the skull: that he had remained senseless for two weeks after this injury and that upon regaining consciousness, he was completely aphasic. This, with the exception of pain in the head over the region of the injury, and some weakness in the right arm and leg, was practically his only symptom. There was no history of convulsions; no paralysis; no difficulty in swallowing. There was no depression over the site of the original fracture, which had been operated on at the Eastern District Hospital. It was ascertained that prior to his injury he could read, write and spell fairly well, and had been intelligent enough to carry on his business as a boss painter, making out his own accounts, etc. The only word he could now speak was the German word "alles," and this was his invariable reply to all questions put to him, although he understood them perfectly. For example, when a key was handed to him he would call it "alles," but he was able to draw a picture of a key and indicate its use.

The patient was examined from a neurological standpoint by Drs. Sachs and Abrahamson. Dr. Elsberg, Adjunct Surgeon, also spent much time in careful observations of the case. A diagnosis of probable hemorrhagic cyst was made, located over the left Rolandic area, and due to *contre coup.* The aphasia pointed to a lesion of the Broca convolution, and craniotomy in that region was advised. The operation was done by Dr. Lilienthal on November 8, 1907. Upon opening the skull over the left Rolandic fissure, the pia was found to be very adherent to the brain. Upon incising the dura, a small quantity of serous fluid escaped; some of this was collected for examination, and was reported as degenerated brain tissue. The lesion found was regarded as a broken down cyst.

There was no improvement in the man's speech subsequent to the operation. Since then, systematic efforts had been made to teach him to regain his lost power of speech, beginning with rudimentary methods, but instead of teaching him German, which was his natural language and in which he was most proficient, the instruction was entirely limited to English words, with the idea of demonstrating, if possible, the correctness of the physiological theory that when the word-centre was destroyed, as it apparently had been in this case, the adjacent brain cells, or perhaps the corresponding centre on the opposite side of the brain, would take up the work. The patient was now able to speak English fairly well. He understood German,—as he did before the operation—but with the exception of the one word, "alles," he was unable to speak in that language.

Dr. Charles A. Elsberg, who has seen the patient both before and after the operation, said he had been very much interested in watching the order in which the speech and reading power had returned in this case. In learning the alphabet, he was first able to recognize and pronounce certain consonants, such as "p" and "b." Then came "t" and then "s," and after that he learned the vowels and the other letters of the alphabet. It was quite some time before he was able to read words, and at first only very simple words. In the beginning he was often unable to pronounce the word. He often could pronounce parts of a word, but not the entire word.

Dr. I. Abrahamson, who had studied the case in Dr. Sach's ward at Mt. Sinai Hospital, said the patient had recently had several attacks of Jacksonian epilepsy beginning in the right face, and in each instance these were followed by a temporary loss of his newly regained power of speech. The case was apparently one of cortical motor aphasia with a distinct focal lesion of Broca's area due to a trauma on the opposite side of the skull, resulting in practically complete motor aphasia and a slight degree of faciobrachial monoplegia. The temporary retrocession of speech occurring after the attacks of Jacksonian epilepsy, involving the right face, apparently disproved the theory that the impaired function of the left word-centre had been taken up by the opposite side of the brain. In connection with his remarks, Dr. Abrahamson gave a schematic representation which explained in detail the various components of the aphasia in this case.

SUPPURATING HYDATID LIVER CYST COMPLICATING CHOLELITHIASIS.

Dr. Lilienthal presented a man, 33 years old, who since childhood had suffered from attacks of biliary colic, never, however, associated with jaundice. He came under Dr. Lilienthal's observation in November, 1907, and was operated on at the Mt. Sinai Hospital on November 25th for what was thought to be a cholelithiasis, as a hard mass was felt prior to operation in the region of the gall-bladder. Upon opening the abdomen, a pericholecystic mass was found, with a single large stone in the gall-bladder. The stone was removed, and the hard mass was incised: it was found to contain pus, which was evacuated through the gall-bladder. The patient's wound failed to heal, and several weeks after the operation a small hydatid cyst was evacuated through the sinus, which continued to drain freely for about two months, enormous quantities of fluid and numerous small and large cysts escaping. Two ribs were then resected posteriorly, and a counter-opening made on a probe pushed down to the point. This exposed a large hydatid cyst containing calcified plates, showing that it must have been there for a long time. Two handfuls of these plates were avulsed, and then a tube was run through from front to back. This second operation was done on March 4, 1908, and the patient left the hospital about a fortnight later. He was now practically well, although there was still a slight discharge from the wound.*

In reply to a question, Dr. Lilienthal said the pleura in this case was simply pushed upwards—not opened.

Dr. George E. Brewer said that in one case of hydatid cyst which he was unable to remove or completely empty excepting through long-continued drainage, he brought about death of the daughter cysts by injections of silver nitrate solution, beginning with a strength of 1–8000 and gradually increasing it to 1–500. This practically sterilized the cyst.

ŒSOPHAGEAL DIVERTICULUM.

Dr. George E. Brewer presented a woman, aged 78 years, who was admitted to the Roosevelt Hospital in March, 1908, suffering from difficulty in swallowing, with progressive loss of weight and strength. The history of her trouble dated back some nine years, at which time she began to have difficulty in swallowing large particles of food. This condition gradually became more marked, so that she was obliged to masticate with greater care, and to exclude from her diet many articles of food which were formerly swallowed with ease. About two years ago she began to experience difficulty in swallowing fluids. In attempting to swallow rapidly, there would occur a spasmodic closure of the pharynx, with regurgitation and coughing. She was obliged to swallow only a very small amount of fluid at a time, and several efforts would be required to accomplish the result. About this time she noticed occasional regurgitation of a mouthful of glairy mucus. During the past six months, the patient has been unable to swallow any solid or semi-solid food, and has had increasing difficulty in swallowing fluids. She has lost between 20 and 30 pounds in weight, and the efforts in swallowing are almost invariably accompanied by pain and vomiting. On examination, nothing unusual could be determined by inspection of the neck or pharynx. On attempting to pass an œsophageal bougie, it was arrested at a point eleven inches from the incisor teeth. After a number of attempts, a small bougie

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* Note.—At present writing, May 26, wounds are soundly healed.

(about 20 mm. in circumference) was passed along the right wall of the pharynx, below the obstruction into the stomach. This was followed by several larger sizes, which would pass into the stomach if the point was slightly bent and kept closely in contact with the right lateral wall. On attempting to swallow a glass of water, the patient would bend the head well to the right side and would make several distinct attempts before a drachm of the fluid would pass into the stomach, and it would require about fifteen minutes effort to succeed in swallowing four ounces of water or milk.

Several X-ray examinations were made after the patient had swallowed a quantity of bismuth paste. These were not particularly satisfactory but demonstrated the presence of a pouch apparently situated to the left of the œsophagus, opposite the upper border of the cricoid cartilage. As the patient presented evidences of marked weakness on account of the long-continued absence of nourishing food, and as there was well-marked evidence of arterial sclerosis and chronic nephritis, the danger of any operative procedures was fully discussed with her and her family. As her condition was distressing in the extreme, and as there was little or no likelihood of improvement without operation, she decided upon radical surgical treatment.

Under scopolamine, morphine and ether anæsthesia (the rectal method), an incision was made along the anterior border of the sternomastoid muscle from the greater cornu of the hyoid bone to a point well below the cricoid. The various tissues were then separated and retracted until the lateral wall of the œsophagus was exposed. It was found that about the junction of the pharnyx and œsophagus there was an oval protrusion about the size of a robin's egg which could be made to descend along the lateral wall of the œsophagus by the introduction of a bougie from the mouth. An opening was made through the centre of this pouch, and the finger introduced into the œsophagus. On attempting to pass the finger downward, a marked narrowing of the tube was noted about on a level with the lower border of the diverticulum. On retracting the edges of the diverticulum wound, this stricture seemed to be made up of a thin fibrous ring which gave the appearance of a symmetrical narrowing, such as would be produced by the tying of a string tightly about the tube. This ring was divided into two parts and thoroughly dilated with the index finger, after which the diverticulum was removed by an elliptical incision, and the œsophageal wound closed by two layers of sutures. As the wound had been greatly contaminated by secretion from the pharynx, its upper two-thirds were closed by layer suture, and a cigarette drain left in the lower angle. Practically no reaction followed the operation, although the wound was moderately infected from the first. Nothing was swallowed for five days, although she received an abundance of salt solution and peptonized milk by the rectum. On the fifth day she was given a little sterile water to swallow, and the next day she took a quantity of milk, and the rectal feeding was discontinued. During the second week she was able to take custard, junket, cereals and soft puddings, and before she left the hospital she swallowed with ease beef steak, roast beef and potatoes, and in fact any kind of solid food. At no time was there any leak from the œsophageal wound. At present she is able to swallow all kinds of food and experience no discomfort whatever.

SUPPURATIVE TENOSYNOVITIS OF FLEXORS OF HAND AND WRIST. BIER'S HYPERÆMIA: MULTIPLE INCISIONS.

Dr. Charles H. Peck presented a woman, aged 40, who had pierced the pulp of the right thumb with a cod-fish bone four days before her admission to the French Hospital on April 20, 1908. No attention was paid to the wound until that night, when there was severe throbbing pain in the thumb, with slight swelling. The pain, swelling and extension of the inflammation up the arm continued, in spite of a small incision which was made by her physician, and when admitted to the hospital there was tenderness and swelling along the flexor aspect of thumb, and over the great palmar bursa at the wrist. Temperature on admission was 101.2; pulse, 136. No enlarged axillary glands. The leucocyte count on April 22nd was 57,000. Under ether, the incision in the ball of the thumb was enlarged, and an incision over the flexor aspect of wrist was carried directly into the great palmar bursa. Little pus was obtained; cultures showed growths of both streptococcus and staphylococcus aureus. The wound at the wrist was packed. On April 22nd, two days later, an incision was made on the flexor aspect of the forearm, upper third, and packed with gauze.

The Bier's constriction was applied for the first time, two hours in the morning and two hours in the afternoon. The temperature was 102. The next day the bandage was applied eight hours in the 24, and on April 24th, 18 hours in the 24. The wounds were suppurating more freely; the packing had been omitted altogether; the fingers were moved each day at the dressings, and the pus gently pressed out of the incisons. The leucocytes were 38,500; temperature, 101. From this time until April 29th, when the temperature reached normal, and the leucocytes were down to 21,500, the constricting bandage was left on the arm from 14 to 20 hours out of the 24. The suppuration extended down the little finger tendon, and incisions were made under cocaine along its course on April 26th. On April 27th another incision was made under cocaine on the flexor aspect of forearm, middle third, and pus evacuated from the deep muscular planes; also an incision in the thenar eminence down to the flexor tendon of the thumb.

Altogether, eight short incisions were made from April 20th to April 27th. No packing was used after the first three days: The constricting bandage was applied, as described, from April 22nd to May 1st, nine days in all. Wet dressings of weak bichloride solution were kept on constantly, and the wounds were dressed daily with gentle pressing out of the pus, and passive motion of the fingers. Suppuration had practically ceased by May 1st, eleven days after the first incisions, and nine days after the first application of the bandage; the temperature remained normal after April 29th. There was no tendon sloughing, and the patient is rapidly regaining motion in both fingers and wrist. Healing is complete, excepting for two small granulating areas on the forearm, and one on the ball of the thumb.

Dr. Willy Meyer said the case shown by Dr. Peck proved the correctness of Bier's statement that gauze packing of the involved tendon sheaths was apt to be followed by necrosis. Bier contended that the same thing occurred in acute bone inflammation and periosteitis and osteomyelitis. Dr. Meyer thought it was unnecessary to apply the Bier hyperæmic treatment in a case of subcutaneous phlegmon, unless, perhaps, from a cosmetic standpoint; free incisions and drainage usually sufficed. But when it came to the preservation of function, and especially in such an acute case as the one shown by Dr. Peck, then Bier's hyperæmic treatment was indicated, no matter how much time or trouble it involved. The incisions in these cases were made to overcome suppuration; the hyperæmic treatment to overcome inflammation. As long as tenderness and temperature persisted, we could feel assured that pus was still somewhere and this should be evacuated. Some time after the wound had closed, the hot air treatment would be found beneficial to overcome stiffness and œdema.

SARCOMA OF THE OVARY IN A CHILD.

DR. JOHN F. ERDMANN presented a girl of thirteen and a half years, who came under his observation in August, 1907, with the diagnosis of a probable appendicitis. She complained of pain in the abdomen, and had a temperature of about 100. A large, painful, movable mass could be felt in the abdomen, extending well up above the umbilicus. Prior to the operation, which was done on August 5, 1907, Dr. Erdmann said he regarded the tumor as a cyst. On opening the abdomen, he found a large, pultaceous mass springing from the left ovary, with the pedicle twisted, and associated with it was a mass of the omentum. The growth showed all the evidences of strangulation; during the removal the sac ruptured. The peritoneal cavity was cleaned as thoroughly as possible. At the time he found implantation secondary growths. Dr. Harlow Brooks reported as follows:

"Free hand sections of the large ovarian growth show the body of the growth to be well localized by a relatively thick membrane of newly formed connective tissue, derived apparently from the ovary, although this membrane has been infiltrated by the new-growth cells which in part enter into the make-up of it. Still, it seems to me that the malignant characteristics do not extend through this sheet. The central portions of the tumor, notably the grayish-white semimucoid material, proves to be made up of a stroma of connective tissue, into the make-up of which embryonic cells largely enter. These cells merge into other cells which are mostly found in semi-acinar arrangement, and which appear to be epitheloid in nature. The blood vessels are not very numerous, but many of them are made up of walls, into the make-up of which the neoplastic cells enter. A diffuse hyaline or mucoid degeneration seems to have involved both epitheloid and connective-tissue structures, and in some places the growth closely resembles a myxoma. The growth is histologically sarcomatous, but like many similar growths of the ovary, especially in the young, epitheloid elements, though of course embryologically entodermal or mesodermal, enter largely. I am inclined to consider the growth a sarcoma, although of a rather low grade of malignancy, and it may not return if it was possible to remove it entirely. In fact, it seems to me that these early sarcomata of the ovary are clinically more like teratoma than sarcoma such as we meet in other parts of the body. Of course, if local or vascular infection has already taken place, the prognosis cannot be otherwise than bad."

The patient left the hospital within a fortnight after the operation, and when she returned, a few days ago, she had a tumor, almost the size of a fœtal head, springing from the scar of the operation; the tumor was firmly fixed, and apparently involved the uterus, peritoneum and abdominal wall.

TWO PERFORATIONS OF A GASTRIC ULCER WITHIN SIX MONTHS.

Dr. George E. Brewer presented a man, aged 21, who was admitted to the Roosevelt Hospital in October, 1907, suffering from acute pain in the epigastrium, vomiting, and great prostration. There had been a previous history of gastric ulcer for two and a half years. The present attack occurred on the morning of his admission. On examination, there was moderate tenderness of the abdomen, and board-like rigidity over the upper right quadrant; the point of greatest tenderness seemed to be in the region of the pylorus. There was moderate elevation of temperature and pulse. The patient seemed greatly prostrated. He was immediately prepared for operation. On opening the abdomen, a quantity of free fluid escaped. On examining the stomach, an extensive induration was found at the pylorus, in the centre of which a perforation had occurred which allowed the free escape of gas and gastric contents. There was a moderate amount of adhesive peritonitis in the neighborhood, and a quantity of turbid fluid seemed everywhere present in the peritoneal cavity. The perforation was closed by a purse-string suture of silk, and the peritoneal cavity washed out with a large amount of normal saline solution. The wound was closed without drainage, and the patient made an uninterrupted recovery. When he was discharged from the hospital, he was able to eat solid food with little or no discomfort.

Four weeks ago the patient was again admitted to the hospital, suffering from acute epigastric pain and tenderness. He stated that for the past month he had had more or less pain after eating, with sour eructations and occasional vomiting. On examination, the upper half of the right rectus was rigid, there was moderate rigidity of the upper half of the left rectus, with marked tenderness over the entire epigastric area. Temperature, 100; pulse, 84, and of good quality. He was immediately prepared for operation, and at 9 A.M., just four hours after his first symptom, the abdomen was re-opened and another perforation found almost in the same position as the original one. This was closed by a purse-string suture, and as the induration at the pylorus seemed greater than at the first operation, and as the patient was in exceedingly good condition, a gastro-enterostomy was performed by the no-loop suture method. The upper abdomen was irrigated with normal salt solution, although there was little or no evidence of foreign material in the peritoneal cavity. The wound was closed without drainage. No reaction followed the operation, and he made an uninterrupted recovery.

BACKWARD DISLOCATION OF THE ELBOW; ULNAR PARALYSIS.

DR. F. KAMMERER presented a young woman who had come under his care in August, 1907, suffering from a backward dislocation of both bones of the forearm, of three weeks' standing. All attempts at reduction under anæsthesia failed. A longitudinal incision was thereupon made over the posterior surface of the elbow-joint, exposing the latter freely. Reduction was then accomplished with some difficulty, although during the necessary manipulations to effect the same, the cause which had prevented prior reduction was not ascertained. The extreme tip of the coronoid process had been torn away. Re-dislocation of the forearm frequently occurred during further manipulation. The wound was entirely closed, and after several days, when primary union seemed assured, a plaster-of-Paris dressing was applied with the arm flexed at a right angle. The joint-surfaces were in normal position at the time.

On the day after operation a paralysis of the ulnar nerve, not complete, was noticed, which rapidly grew worse and in a few days the typical picture of complete loss of motor and sensory function of the nerve developed. Upon removal of the plaster-of-Paris dressing, three weeks later, it having become somewhat loose, it was seen that both bones of the forearm were again dislocated backwards. The joint was again opened in the old cicatrix, the bones forced back to their normal position and a long nail was driven through the olecranon into the humerus, with the arm again bent at a right angle at the elbow (see X-ray picture, Fig. 1.) A plaster-of-Paris dressing was again applied for four weeks, from which the head of the nail protruded. The latter was pulled out at the end of the second week. Meanwhile, the muscles supplied by the ulnar nerve atrophied, and the hand assumed the well-known *main en griffe* position. After removal of the dressing, the bones were found in their normal relation to one another, and active and passive movements were begun. About five months after the injury, the ulnar paralysis having shown no improvement, an incision, about six inches long, was made over the nerve, and the latter exposed in the entire length of the incision. Special care was taken to follow it along its course through the flexor carpi ulnaris muscle. At no point was a lesion of the nerve detected, and nowhere did it appear atrophied. The incision was closed. A few days after this operation sensation began to return, and in a few weeks the atrophied and paralyzed muscles began to resume their function. This operation was done on January 11, 1908, and at present the sensory and motor symptoms have almost entirely disappeared. The forearm can be flexed beyond a right angle, and extension is possible almost to the full extent; pronation and supination were somewhat limited.

Dr. Kammerer said he was unable to account for the lesion of the ulnar nerve. He naturally thought some injury had been done during exposure of the joint and the dissection of the soft parts from the internal condyle of the humerus, but this was disproved by the dissection of the nerve later on. The necessary lesions of the joint surfaces by the nail had evidently not in the least interfered with the further function of the elbow-joint.

Dr. Eliot said he had had a case similar to the one shown by Dr. Kammerer, with ulnar paralysis, which was relieved by exposure of the nerve and resection of the internal condyle. In another case of paralysis after fracture of the neck of the radius, almost immediate improvement followed the removal of callus which pressed against the posterior interosseous nerve. In that instance the improvement was just as striking as in the case of Dr. Kammerer's.

Fig. 1.

Skiagraph showing fixation by nail of ulna to humerus to overcome persistent tendency to backward dislocation.

CHYLE CYSTS OF THE MESENTERY.

Dr. William B. Brinsmade read a paper with this title for which see page 565.

In connection with his paper, Dr. Brinsmade showed a patient illustrating the condition described.

Dr. Charles N. Dowd said that a few years ago he had presented to the society a case which suggested several points about the formation of mesenteric cysts. The cyst, which closely resembled an ovarian multilocular cyst, had no epithelium in the wall of the largest chamber while in the smaller chambers there were distinct epithelial linings. The absence of an epithelial lining therefore did not at all mean that there had never been such a lining—just as in parovarian cysts the small ones have epithelial lined walls and the large ones have lost their epithelium through pressure—so in mesenteric cysts the epithelium has often disappeared. In the cyst which he had presented the content of the different chambers too had been different, some containing blood, others clear fluid. This cyst was manifestly of embryonic origin; from an ovarian rest; and there were many reasons for believing that most of the mesenteric cysts were also of embryonic origin, the content of the cyst depending in a measure on its location. If it was located among the lacteals it was easy to believe that chyle might exude through the wall of a compressed vessel and find its way into the cyst cavity, in fact it was much easier to believe this than that a cyst should result from the simple occlusion of a lacteal vessel. One hardly understands why the occlusion of a lacteal should result in a chyle cyst any more than the occlusion of a leg vein should result in a blood cyst. The anastomosis is too abundant and the internal pressure too slight to make such formation easy.

Ducasset had reported a case in which some loculi contained yellow serous fluid with no evidence of chyle and others contained white chylous fluid. Demon had also reported a multilocular cyst in which one chamber contained blood and the others chylous liquid. Küster described a chylous cyst which was lined with epithelium and Pagenstecher one in the fluid of which degenerated flat epithelial cells were found.

We may be misled by the statistics of recoveries from the simple drainage of these cysts. The later histories were not given and we do not know how many of them refilled. We do know, however, that many of the ordinary cysts, which are simply drained, refill at a later time. Hence in dealing with these cysts it seems wise to remove at least some of them.

SUPRAPUBIC PROSTATECTOMY.

Dr. **John F. Erdmann** showed eight specimens of exceptionally enlarged prostates which he had removed during the past few weeks. In all of these cases the operation has been done by the suprapubic route, which the speaker said he now favored in practically all cases, in preference to the perineal.

REAMPUTATION OF LOWER END OF LEG FOR EXOSTOSIS IN A PREVIOUS BIER AMPUTATION.

Dr. **John F. Erdmann** presented a specimen of reamputation of the leg at the upper and middle thirds necessitated by an exostosis between the end of the tibia and the Bier flap. This occurred in a man 41 years of age, whose leg had been amputated by the Bier method in one of the New York hospitals subsequent to a trauma. Some few months after the amputation the patient observed that the skin over the end of the stump was becoming taut and ulcerated. He was seen by Dr. Erdmann, who advised reamputation, owing to the fact that the stump was decidedly conical and the skin covering it drawn very tightly, while at the apex an ulcer the size of a half-dollar existed. Upon dissection of the stump by Dr. Erdmann it was found that the thin Bier flap had been pushed three-quarters of an inch away from the tibial end by the filling in with ossific or calcareous tissue.

Dr. Erdmann stated in showing this specimen that he presented it with a view of showing one of the dangers of the Bier flap.

Dr. **Willy Meyer**, in discussing the last specimen shown by Dr. Erdmann, said the patient referred to had been under his care for almost two years. The original injury to the leg was sustained in a railroad accident, with far-reaching blood invasion between the muscles, etc. Amputation became necessary and he did the osteoplast method. The periosteum of the tibia was also much suffused with blood. A partial necrosis of the bone-flap followed, but the wound healed at last. The patient was very restless and put the artificial leg on too early, so that there was now and then superficial soreness. He had intended to transplant a skin flap from the other leg in order, according to X-ray pictures, to preserve the bone-plasty, which had proved a success.